

**Commonwealth of Kentucky  
Division for Air Quality**

**PERMIT APPLICATION SUMMARY FORM**

Completed by: Sreenivas Kesaraju

GENERAL INFORMATION:

Name: Catlettsburg Refining, L.L.C.  
Address: Catlettsburg, KY 41129  
Date application received: March 31, 2004  
SIC/Source description: 2911/Petroleum Refining  
EIS #: 21-019-00004  
Application log number: 56367  
Permit number: VF-04-001

APPLICATION TYPE/PERMIT ACTIVITY:

<input type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input checked="" type="checkbox"/> Permit modification	<input type="checkbox"/> Conditional major
<input type="checkbox"/> Administrative	<input checked="" type="checkbox"/> Title V
<input type="checkbox"/> Minor	<input checked="" type="checkbox"/> Synthetic minor
<input checked="" type="checkbox"/> Significant	<input type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input checked="" type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> PSD
<input checked="" type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input checked="" type="checkbox"/> Netted out of PSD/NSR	
<input type="checkbox"/> Not major modification per 401 KAR 51:017, 1(23)(b) or 51:052,1(14)(b)	

MISCELLANEOUS:

Acid rain source  
 Source subject to 112(r)  
 Source applied for federally enforceable emissions cap  
 Source provided terms for alternative operating scenarios  
 Source subject to a MACT standard  
 Source requested case-by-case 112(g) or (j) determination  
 Application proposes new control technology  
 Certified by responsible official  
 Diagrams or drawings included  
 Confidential business information (CBI) submitted in application  
 Pollution Prevention Measures  
 Area is non-attainment (list pollutants): Ozone, SO<sub>2</sub>

EMISSIONS SUMMARY:

The emissions increase from the Kerosene Desulfurization unit installation is as follows:

Pollutant	Potential (tpy)	Actual (tpy)
PM	2.3	2.3
PM10	2.3	2.3
SO <sub>2</sub>	8.3	8.3
NO <sub>x</sub>	32.4	32.4
CO	25.8	25.8
VOC	21.9	21.9

SOURCE PROCESS DESCRIPTION:

The site of the proposed project is the petroleum refinery operated by Catlettsburg Refining, LLC, a subsidiary of Marathon Ashland Petroleum LLC. This refinery is located on the Big Sandy River in Catlettsburg, Boyd County, Kentucky.

The Kerosene Desulfurizer (KDS) project involves installation of a new KDS Unit (Unit No. 2-122). This unit will have a nominal capacity of 25,000 barrels per day and will utilize a fixed-bed hydrotreating process to process blended kerosene down to a maximum product sulfur content of 10 parts per million (ppm).

EMISSION AND OPERATING CAPS DESCRIPTION:

To preclude applicability of 401 KAR 51:017, Prevention of Significant Deterioration of Air Quality, and 401 KAR 51:052, Nonattainment New Source Review, Catlettsburg Refining has requested that the net emissions increases from the KDS charge heater be limited to the following:

PM	1.8 TPY
PM10	1.8 TPY
SO <sub>2</sub>	6.3 TPY
NO <sub>x</sub>	11.7 TPY
CO	19.6 TPY
VOC	1.3 TPY